

TUCSON FIRE FIGHTERS (029)

**ARIZONA PUBLIC SAFETY PERSONNEL
RETIREMENT SYSTEM**

JUNE 30, 2010

November 19, 2010

The Board of Trustees
Arizona Public Safety Personnel Retirement System
Phoenix, Arizona

Re: Tucson Fire Fighters

Ladies and Gentlemen:

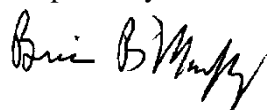
The results of the **June 30, 2010 annual actuarial valuation of members** for Tucson Fire Fighters covered by the Arizona Public Safety Personnel Retirement System (PSPRS) are presented in this report. The purpose of the valuation is to measure the funding progress of the plan and to establish contribution rates for the 2011-2012 fiscal year.

The valuation is based upon current plan provisions of the Arizona Public Safety Personnel Retirement System. All promised benefits are included in the actuarially calculated contribution rates. These provisions are summarized in Sections F. Data was provided by the Board of Trustees and was checked for year-to-year consistency but was not otherwise audited.

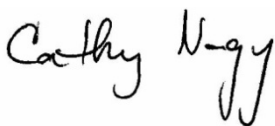
GRS's work product was prepared exclusively for the Arizona Public Safety Personnel Retirement System and only for the purpose described above. Any distribution of this report must be provided in its entirety unless prior written consent is obtained from GRS. The recommendations and conclusions presented in this report are based upon the specific circumstances of PSPRS and would not necessarily be valid for any other plan even if another plan appeared similar to PSPRS. Therefore, third party recipient of this work product cannot rely in any way upon its results or conclusions. This report is not intended and cannot be interpreted to give income tax advice, legal advice, investment advice, or accounting advice.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with Actuarial Standards of Practice, the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries. The undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

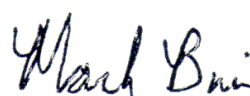
Respectfully submitted,



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BBM/CN/MB:mrbb

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SECTION A

INTRODUCTION

FUNDING OBJECTIVE

The purpose of the annual actuarial valuation of the Arizona Public Safety Personnel Retirement System as of June 30, 2010 is to:

- Compute the liabilities associated with benefits likely to be paid on behalf of current retired and active members. This information is contained in Section B.
- Compare accrued assets with accrued liabilities to assess the funded condition. This information is contained in Section B.
- Compute the employers' recommended contribution rates for the Fiscal Year beginning July 1, 2011. This information is contained in Section A.

This objective is stated in Article 4, Chapter 5, Title 38, Sections 843B and 848N of the Arizona Revised Statutes.

CONTRIBUTION RATES

The Retirement System is supported by member contributions, employer contributions and investment income from Retirement System assets.

Contributions which satisfy the funding objective are determined by the annual actuarial valuation and are sufficient to:

- (1) Cover the actuarial present value of benefits allocated to the current year by the actuarial cost method described in Section E (the normal cost); and
- (2) Finance over a period of future years the actuarial present value of benefits not covered by valuation assets and anticipated future normal costs (the unfunded actuarial accrued liability).

Computed contribution rates for the fiscal year beginning July 1, 2011 are shown on page A-2.

CONTRIBUTION REQUIREMENTS

Development of Employer Contributions for the Indicated Valuation Date

Valuation Date	<u>June 30, 2010</u>
Contribution for Fiscal Year	2012
Pension	
Normal cost requirement	
Service pensions	17.60 %
Disability pensions	0.81
Survivors of active members	0.91
Refunds of members' accumulated contributions	<u>0.17</u>
Total normal cost requirement	19.49 %
Less member contributions	<u>7.65</u>
Employer normal cost requirement	11.84 %
Amortization of unfunded liabilities	<u>16.98</u> %
Total pension contribution requirement	28.82 %
Health	
Normal cost requirement	0.57 %
Amortization of unfunded liabilities	<u>1.49</u> %
Total health contribution requirement	2.06 %
Total contribution requirement	30.88 %
Minimum contribution requirement	30.88 %

The results above are shown both prior to and after the application of the statutory minimum of 8% of payroll (5% of payroll if the actual employer contribution rate is less than 5% for the 2006/2007 fiscal Year).

SECTION B
FUNDING RESULTS

PRESENT VALUE OF FUTURE BENEFITS AND ACCRUED LIABILITY

	<u>June 30, 2010</u>
A. Accrued Liability	
1. For retirees and beneficiaries	\$ 196,802,012
2. For DROP members	58,569,841
3. For vested terminated members	91,859
4. For present active members	
a. Value of expected future benefit payments	186,293,199
b. Value of future normal costs	<u>(84,418,092)</u>
c. Active member accrued liability: (a) - (b)	<u>101,875,107</u>
5. Total accrued liability	357,338,819
B. Present Assets (Funding Value)	
1. Preliminary Assets	226,313,511
2. Future Benefit Increases	8,817,530
3. Final Assets: (B.1) - (B.2)	<u>217,495,981</u>
C. Unfunded Accrued Liability: (A.5) - (B.3)	139,842,838
D. Stabilization Reserve	<u>-</u>
E. Net Unfunded Accrued Liability: (C) + (D)	<u>139,842,838</u>
F. Funding Ratio: (B.3) / (A.5)	<u>60.9%</u>

SECTION C
FUND ASSETS

DEVELOPMENT OF FUNDING VALUE OF ASSETS (7-YEAR SMOOTHING)

Year Ended June 30:	2010	2011	2012	2013	2014	2015	2016
A. Funding Value Beginning of Year (Including Future Benefit Increases)	\$ 5,731,110,925						
B. Market Value End of Year	4,585,863,403						
C. Market Value Beginning of Year	4,115,701,122						
D. Non Investment Net Cash Flow	(82,914,232)						
E. Investment Income							
E1. Total: B-C-D	553,076,513						
E2. Amount for Immediate Recognition (8.50%)	483,620,574						
E3. Amount for Phased in Recognition: E1-E2	69,455,939						
F. Phased in Recognition of Investment Income							
F1. Current Year: E3 / 7	\$ 9,922,277						
F2. First Prior Year	(192,391,612)	\$ 9,922,277					
F3. Second Prior Year	(124,481,914)	(192,391,612)	\$ 9,922,277				
F4. Third Prior Year	50,985,948	(124,481,914)	(192,391,612)	\$ 9,922,277			
F5. Fourth Prior Year	(11,159,896)	50,985,948	(124,481,914)	(192,391,612)	\$ 9,922,277		
F6. Fifth Prior Year	(11,110,554)	(11,159,896)	50,985,948	(124,481,914)	(192,391,612)	\$ 9,922,277	
F7. Sixth Prior Year	13,011,801	(11,110,557)	(11,159,895)	50,985,946	(124,481,913)	(192,296,967)	\$ 9,922,277
F8. Total Recognized Investment Gain	\$ (265,223,950)	\$ (278,235,754)	\$ (267,125,196)	\$ (255,965,303)	\$ (306,951,248)	\$ (182,374,690)	\$ 9,922,277
G. Funding Value End of Year							
G1. Preliminary Funding Value End of Year: (A+D+E2+F8)	5,866,593,317						
G2. Future Benefit Increases	275,289,327						
G3. End of Year: (G1-G2)	5,591,303,990						
H. Difference Between Market Value & Funding Value: (B-G1)	(1,280,729,914)						
I. Market Rate of Return	13.6%						
J. Recognized Rate of Return	3.8%						
K. Ratio of Funding Value to Market Value	127.9%						
L. Market Value of Assets for Division	176,907,243						
M. Funding Value of Assets for Division	226,313,511						

The funding value of assets recognizes assumed investment return (line E2) fully each year. Differences between actual and assumed investment return (line E3) are phased in over a closed 7-year period. During periods when investment performance exceeds the assumed rate, funding value of assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, funding value of assets will tend to be greater than market value. The funding value of assets is **unbiased** with respect to market value. At any time it may be either greater or less than market value. If actual and assumed rates of investment return are exactly equal for 7 consecutive years, the funding value will become equal to market value.

SECTION D
CENSUS DATA

JUNE 30, 2010 VALUATION DATA SUMMARY

For purposes of the June 30, 2010 valuation, information on covered persons was furnished by the The Board of Trustees. These people may be briefly described as follows.

	No.	Averages		
		Age	Service	Annual Pay or Retirement Allowance
Actives	585	38.4	10.7	\$65,395
Retirees & Beneficiaries	452			46,043
DROP	78			
Inactive Vested	10			
	1,125			

SECTION E

METHODS AND ASSUMPTIONS

VALUATION METHODS

Actuarial Cost Method - Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using the Projected Unit Credit Cost Method having the following characteristics:

- (i) The annual normal costs for each individual active member, payable from date of hire to date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement;
- (ii) Each annual normal cost is the portion of the actuarial present value allocated to the current year. The normal cost is expected to increase as accrued service increases.

This method tends to be less stable than the Entry Age Normal Method particularly if the group size changes.

Actuarial Accrued Liability - The actuarial accrued liability is the portion of actuarial present value allocated to service rendered prior to the valuation date, including experience gains and losses. The actuarial accrued liability was computed using the assumptions summarized in this report.

Actuarial Value of System Assets - The actuarial value of assets recognizes assumed investment income fully each year. Differences between actual and assumed investment income are phased in over a closed seven year period. During periods when investment performance exceeds the assumed rate, actuarial value of assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, the actuarial value of assets will tend to be greater than market value.

Financing of Unfunded Actuarial Accrued Liabilities – The actuarial value of assets were subtracted from the computed actuarial accrued liability. Any unfunded amount would be amortized as level percent of payroll over a closed period of 26 years. If the actuarial value of assets exceeded the actuarial accrued liability, the excess was amortized over an open period of 20 years and applied as a credit to reduce the normal cost which otherwise would be payable.

Active member payroll was assumed to increase 5.5% annually for the purpose of computing the amortization payment (credit) as a level percent of payroll.

VALUATION ASSUMPTIONS

Beginning with the June 30, 2007 valuation and with each subsequent valuation, if the actuarial value of assets exceeds the actuarial accrued liabilities, one half of this excess in each year is allocated to a Stabilization Reserve. The Stabilization Reserve is excluded from the calculation of the employer contribution rates. The Stabilization Reserve continues to accumulate as long as the plan is over-funded. Once the plan becomes under-funded, the Stabilization Reserve will be used to dampen increases in the employer contribution rates.

The rate of investment return was 8.5% a year, compounded annually net of investment and administrative expenses. When viewed in the context of the COLA reserve, this assumption is extremely aggressive.

The assumed real return is the rate of return in excess of wage growth. Considering other assumptions used in the valuation, the 8.5% nominal rate translates to a net real return over wage growth of 3.0% a year.

The rates of pay increase used for individual members are shown below. This assumption is used to project a member's current pay to the pay upon which System benefits will be based.

Sample Ages	Salary Increase Assumptions For an Individual Member		
	Merit & Seniority	Base (Economy)	Increase Next Year
20	3.0%	5.5%	8.5%
25	3.0%	5.5%	8.5%
30	2.6%	5.5%	8.1%
35	1.1%	5.5%	6.6%
40	0.2%	5.5%	5.7%
45	0.2%	5.5%	5.7%
50	0.2%	5.5%	5.7%
55	0.1%	5.5%	5.6%
60	0.0%	5.5%	5.5%
Ref:	319		

Active Member Payroll is assumed to grow at 5.5% per year. There is no specific price inflation assumption used for this valuation since no benefits are linked to prices.

The healthy mortality table used in this valuation of the System was the RP 2000 Healthy Annuity Mortality table for males with no adjustment, and the female table with one year set forward. This assumption was first used for the June 30, 2007 valuation of the System. Sample rates of mortality and years of life expectancy are shown below:

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.53%	0.25%	30.07	32.35
55	0.59	0.39	25.86	27.79
60	0.82	0.69	21.64	23.42
65	1.34	1.14	17.62	19.33
70	2.22	1.86	13.92	15.54
75	3.78	3.10	10.61	12.13
80	6.44	5.08	7.79	9.16
Ref:	702 x 1.00 0 year set forward	703 x 1.00 1 year set forward		

This assumption is used to measure the probabilities of each benefit payment being made after retirement. For disabled members, non-disability rates with a five year set forward were used.

For actives, the sample rates of mortality and years of life expectancy are shown below, and were first used for the June 30, 2007 valuation of the System.

Sample Attained Ages	Probability of Dying Next Year		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	0.20%	0.20%	34.07	35.14
55	0.28	0.30	29.44	30.52
60	0.44	0.47	24.89	26.03
65	0.70	0.66	20.50	21.67
70	0.95	2.07	16.24	17.57
75	3.39	3.41	12.66	14.64
80	5.79	5.63	10.09	12.50
Ref:	663 x 1.00 1 year set back	664 x 1.00 2 year set forward		

VALUATION ASSUMPTIONS

The rates of regular retirement used to measure the probability of eligible members retiring during the next year are shown below. This assumption was first used for the June 30, 2007 valuation of the System.

Retirement/DROP Rates: Service-related rates based in the following schedule:

Service at Retirement	Rates			
	Police Large	Police Small	Fire Large	Fire Small
20	30%	45%	15%	20%
21	20%	35%	10%	20%
22	20%	25%	10%	10%
23	10%	15%	10%	10%
24	10%	10%	10%	10%
25	45%	40%	30%	20%
26	45%	40%	45%	30%
27	45%	30%	30%	30%
28	45%	30%	45%	30%
29	45%	30%	45%	30%
30	50%	30%	45%	45%
31	50%	30%	50%	45%
32	80%	65%	50%	45%
33	80%	65%	50%	45%
34	100%	100%	100%	100%
Ref.	1737	1738	1739	1740

Active members with at least 34 years of service are assumed to retire within the year. Members who do not acquire 20 years of service prior to age 62 are assumed to retire upon first eligibility following attainment of age 62.

VALUATION ASSUMPTIONS

Rates of separation from active membership used in the valuation are shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment. This assumption was first used for the June 30, 2007 valuation of the System.

Sample Ages	Years of Service	% of Active Members Separating Within Next Year			
		Police Large	Police Small	Fire Large	Fire Small
All	0	12.00%	15.00%	7.00%	7.50%
	1	4.50%	10.00%	1.50%	6.00%
	2	3.50%	9.00%	1.00%	5.00%
	3	3.00%	7.00%	1.00%	5.00%
	4	2.50%	6.00%	1.00%	5.00%
	5 - 10	2.40%	5.30%	1.00%	3.00%
	10 Plus	0.50%	1.80%	0.10%	1.00%
Ref.		602	603	604	605

Rates of disability among active members used in the valuation are shown below, and were first used for the June 30, 2007 valuation of the System.

Sample Ages	% of Active Members Becoming Disabled Within Next Year			
	Police Large	Police Small	Fire Large	Fire Small
20	0.10%	0.15%	0.03%	0.04%
25	0.10%	0.15%	0.03%	0.04%
30	0.21%	0.29%	0.05%	0.04%
35	0.27%	0.35%	0.11%	0.09%
40	0.45%	0.57%	0.20%	0.20%
45	0.64%	0.79%	0.20%	0.55%
50	0.98%	2.00%	0.50%	0.75%
55	1.27%	2.00%	1.16%	1.30%
Ref	588	589	590	591

The Fire Large group assumptions were used for the Tucson Fire Fighters valuation.

SUMMARY OF ASSUMPTIONS USED
JUNE 30, 2010
MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption:	90% of males and females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes.
Pay Increase Timing:	Six months after the valuation date.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	Disability and turnover decrements do not operate during retirement eligibility.
Service Credit Accruals:	It is assumed that members accrue one year of service credit per year.
Incidence of Contributions:	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.
Normal Form of Benefit:	A straight life payment is the assumed normal form of benefit for members who are not married, and the 80% Joint and Survivor form of payment with no reduction, for married members. 90% of members are assumed to be married at time of retirement.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Normal Cost Percentage:	For the purposes of calculating the Normal Cost as a percent of payroll under the Projected Unit Credit Cost Method, the Normal Cost was projected with interest to the applicable Fiscal Year and divided by the Payroll projected with wage base to the applicable Fiscal Year.
Health Care Utilization:	80% of future retirees are expected to utilize retiree health care. 90% of those are assumed to be married.

SECTION F
PLAN PROVISIONS

Summary of Plan Provisions Valued and/or Considered

Membership: Persons who are employed in an eligible group, prior to attaining age 50 years, for at least 40 hours a week for more than six months per year.

Average Monthly Compensation: One-thirty-sixth of total compensation paid to member during the three years, out of the last 20 years of credited service, in which the amount paid was highest. Compensation is the amount including base salary, overtime pay, shift differential pay and holiday pay, paid to an employee on a regular payroll basis and longevity pay paid at least every six months for which contributions are made to the System.

Normal Retirement: First day of month following completion of 20 years of service or following 62nd birthday and completion of 15 years of service.

The amount of monthly normal pension is based on credited service and average monthly compensation as follows:

- **For retirement with 25 or more years of credited service,** 50% of average monthly compensation for the first 20 years of credited service, plus 2-1/2% of average monthly compensation for each year of credited service above 20 years.
- **For retirement with 20 years of credited service but less than 25 years of credited service,** 50% of average monthly compensation for the first 20 years of credited service, plus 2% of average monthly compensation for each year of credited service between 20 and 25 years.
- **For retirement with less than 20 years of credited service,** the percent of average monthly compensation is reduced at a rate of 4% for each year less than 20 years.

The maximum amount payable as a normal retirement pension is 80% of the average monthly compensation.

Vested Termination (deferred retirement): Termination of covered position employment with 10 or more years of credited service. Pension is equal to twice the amount of pension based on the member's accumulated contributions with payments commencing at age 62. Benefit is forfeited if accumulated contributions are refunded. The following schedule shows additional money which would be payable to members who receive a refund of their accumulated member contributions.

<u>Years of Credited Service</u>	<u>Additional Monies (% of Contributions)</u>
0-4	0%
5-6	25-40
7-8	55-70
9-10	85-100

Ordinary Disability Retirement (not duty-related): Physical condition which totally and permanently prevents performance of a reasonable range of duties or a mental condition which totally and permanently prevents any substantial gainful employment. The amount of pension is a percentage of normal pension, as follows:

<u>Credited Service</u>	<u>Additional Monies (% of Contributions)</u>
Less than 7 years	25%
7-13 years	50%
14-19 years	75%

Accidental Disability Retirement (duty-related): Total and presumably permanent disability, incurred in performance of duty, preventing performance of a reasonable range of duties within the employee's job classification. No credited service requirement. Pension is computed in the same manner as normal pension based on credited service and average monthly compensation at time of termination of employment. Pension is 50% of average monthly compensation, or normal pension amount, whichever is greater.

Offset of Ordinary Disability Retirement before the member's normal retirement date: The pension is reduced if the retiree engages in any employment and the income from this employment is greater than the retiree's pension. The reduction is equal to the difference between the retiree's income from employment and the retiree's pension.

Temporary Disability: Termination of employment prior to normal retirement eligibility by reason of temporary disability. Pension is 1/12 of 50% of compensation during the year preceding the date disability was incurred. Payments terminate after 12 months of prior recovery.

Catastrophic Disability: Pension is 90% of average monthly compensation. After 60 months, the pension is the greater of 62.5% of average monthly compensation or the member's accrued normal pension.

Survivor Pension: Death while a member employed by an employer of death after retirement. No credited service requirement.

Spouse Pension: 80% of pension deceased active member would have been paid for accidental disability retirement or, in the case of retired member, 80% of the retired member's pension. Requires two years of marriage. Terminates upon death. For member killed in line of duty, 100% of average compensation, reduced by child's pension.

Child's Pension: 20% of the pension each month based on the calculation for an accidental disability retirement. Payable to a dependent child under age 18 (age 23 if a full-time student).

Guardian's Pension: Same amount as spouse's pension. Payable only during periods no spouse is being paid and there is at least one child under age 18 (age 23 if a full time student). 80% of the member's pension and the Child's Pension will be paid to the guardian.

Other Termination of Employment: Member is paid his/her accumulated contributions.

Post-Retirement Adjustments: Effective July 1 of each year, each retired member or survivor of a retired member may be entitled to a permanent benefit increase in his base benefit. The maximum amount of the increase is four percent (4%) of the average normal PSPRS benefit being received on the preceding June 30 and is contingent upon sufficient excess investment earnings for the fund. To be eligible for the increase the member or survivor must be age 55 or older on July 1 of the current year and began receiving benefits on or before July 31 of the previous year. A member or survivor is also eligible if he began receiving benefits on or before July 31 of the two previous years regardless of age.

A COLA reserve is maintained and used to pay for the post-retirement adjustment. The investment return on the COLA reserve is the same as the return on the market value of assets (whether the return is positive or negative). Additional amounts are added to the COLA reserve in years when the investment return on the market value of assets exceeds 9.0%. Each year the present value of that year's post-retirement adjustment is subtracted from the COLA reserve. A post-retirement adjustment is paid as long as there is a positive balance in the COLA reserve.

Post-Retirement Health Insurance Subsidy: Payable on behalf of retired members and survivors who elect coverage provided by the state or participating employer. The amounts cannot exceed:

Member Only		With Dependents		
Not Medicare Eligible	Medicare Eligible	All Not Medicare Eligible	All Medicare Eligible	One With Medicare
\$150	\$100	\$260	\$170	\$215

Deferred Retirement Option Plan (DROP): A member with 20 or more years of credited service under the System may enter into the DROP program with his employer. Under the DROP program, the member must voluntarily and irrevocably elect to enter into the program with his employer for a period of up to 60 months. During the DROP period, the member remains in the employ of the employer as a full-time paid firefighter or full-time paid certified peace officer but no member or employer contributions are made to the System, therefore no additional years of credited service are accrued on the member's behalf. The member's monthly pension is calculated based upon the years of credited service and average monthly compensation at the beginning of the DROP period. This monthly pension amount is credited to a DROP participation account with interest at the rate of 8.5% annually, but credited monthly to the account. The interest rate credited to the DROP account is 8.25% for the fiscal year beginning July 1, 2010. At the end of the DROP period or prior to that time if the member terminates employment, the monies in the DROP participation account will be either paid to the member in a lump-sum amount or paid in a lump-sum distribution to an eligible retirement plan or individual retirement account. The member will then begin receiving the monthly pension

amount directly from the System in the same amount as was being credited to the DROP participation account.

Reverse DROP: Expired effective July 1, 2010.

Member Contributions: Members contribute 7.65% of compensation.

Employer Contributions: Percent of payroll normal cost plus 30 year (26 years remaining as of June 30, 2010) amortization of unfunded actuarial accrued liability (20 year amortization for credit). The statutory minimum is 8% of payroll (5% of payroll if the actual employer contribution rate is less than 5% for the 2006/2007 fiscal year).

SECTION G
GLOSSARY

<i>Actuarial Accrued Liability</i>	The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.”
<i>Accrued Service</i>	The service credited under the plan which was rendered before the date of the actuarial valuation.
<i>Actuarial Assumptions</i>	Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
<i>Actuarial Cost Method</i>	A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method.”
<i>Actuarial Equivalent</i>	A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.
<i>Actuarial Present Value</i>	The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.
<i>Amortization</i>	Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.
<i>Experience Gain (Loss)</i>	A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.
<i>Normal Cost</i>	The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

<i>Reserve Account</i>	An account used to indicate that funds have been set aside for a specific purpose and is not generally available for other uses.
<i>Unfunded Actuarial Accrued Liability</i>	The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability.”
<i>Valuation Assets</i>	The value of current plan assets recognized for valuation purposes. Generally based on market value plus a portion of unrealized appreciation or depreciation.

APPENDIX I

ACCOUNTING DISCLOSURES

This information is presented in draft form for review by the System's auditor.

GASB STATEMENT NO. 25 SUPPLEMENTARY INFORMATION

SCHEDULE OF FUNDING PROGRESS (EXCLUDING HEALTH INSURANCE SUBSIDY BEGINNING JUNE 30, 2008)

Year Ended June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll [(b)-(a)]/(c)
2003	\$235,482,815	\$239,022,918	\$ 3,540,103	98.5 %	\$27,906,652	12.7 %
2004	228,828,089	253,303,509	24,475,420	90.3 %	27,426,600	89.2 %
2005	228,850,978	285,745,206	56,894,228	80.1 %	29,842,558	190.6 %
2006	225,201,500	303,330,070	78,128,570	74.2 %	29,828,704	261.9 %
2007	206,679,837	321,180,102	114,500,265	64.4 %	36,357,169	314.9 %
2008	212,973,699	321,984,768	109,011,069	66.1 %	39,841,930	273.6 %
2009	217,864,443	329,272,550	111,408,107	66.2 %	38,757,278	287.5 %
2010	217,495,981	345,979,125	128,483,144	62.9 %	38,256,229	335.9 %

Results before 2009 were calculated by the prior actuary.

GASB STATEMENT NO. 25 SUPPLEMENTARY INFORMATION**SCHEDULE OF EMPLOYER CONTRIBUTIONS**

Fiscal Year Ended June 30	Annual Required Contribution
2003	\$ 1,724,572
2004	2,653,025
2005	4,621,390
2006	5,100,332
2007	7,260,919
2008	9,981,531
2009	12,625,922
2010	10,905,280
2011	11,200,199 (est.)
2012	12,271,596 (est.)

Fiscal Years prior to 2011 provided by the prior actuary.

Beginning with the 2011 fiscal year, this schedule shows the estimated annual required contribution (calculated based on the recommended contribution rate and the projected payroll for the fiscal year). Actual amounts reported in the employer's financial statements may be different, due to differences between the projected payroll and the actual payroll during the fiscal year.

GASB STATEMENT NO. 25 SUPPLEMENTARY INFORMATION

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	June 30, 2010
Actuarial cost method	Projected Unit Credit
Amortization method	Level percent-of-pay closed
Remaining amortization period	26 years for underfunded 20 years for overfunded
Asset valuation method	7-year smoothed market
Actuarial assumptions:	
Investment rate of return	8.5%
Projected salary increases	5.5% - 8.5%
Payroll Growth	5.5%
Cost-of-living adjustments	None

GASB STATEMENT NO. 45 SUPPLEMENTARY INFORMATION

The following information is presented concerning the post-retirement health insurance subsidy. The liabilities and computed contribution for the post-retirement health insurance subsidy were based on the same assumptions and actuarial cost methods as indicated for GASB Statement No. 25.

Please note the liabilities in the schedules below were calculated based on the 8.5% interest rate assumption. It is our understanding that currently assets are not segregated to fund these liabilities. As a result, according to GASB Statement No. 45, these benefits may not be considered to be pre-funded. In that case the 8.5% interest rate assumption may not be appropriate. This issue should be discussed with the auditors and with legal counsel.

SCHEDULE OF FUNDING PROGRESS

Valuation Date June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2006	\$0	\$12,696,765	\$12,696,765	0.00%	\$29,828,704	42.57%
2007	0	13,072,771	13,072,771	0.00	36,357,169	35.96%
2008	0	13,451,019	13,451,019	0.00	39,841,930	37.76%
2009	0	11,144,658	11,144,658	0.00	38,757,278	28.76%
2010	0	11,359,694	11,359,694	0.00	38,256,229	29.69%

ANNUAL REQUIRED CONTRIBUTION

Valuation Date June 30	Fiscal Year Ended June 30	Normal Cost (a)	Accrued Liability (b)	Total (a+b)	Dollar Amount
2006	2008	0.59%	1.97%	2.56%	\$1,019,953
2007	2009	0.56	1.70	2.26	900,428
2008	2010	0.50	1.63	2.13	848,633
2009	2011	0.56	1.40	1.96	845,501
2010	2012	0.57	1.49	2.06	877,151

Fiscal Years prior to 2011 were provided by the prior actuary.

Health Insurance Subsidy Payment Reported For FY 2010: \$838,816